

BUDAWANGIA*

AN E-NEWSLETTER FOR ALL THOSE INTERESTED IN THE NATIVE PLANTS OF THE NSW SOUTH COAST

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Aims: To connect those interested in the native flora of the NSW South Coast, to share up to date information on the flora of the region and to broaden the appreciation of the region's native plants.

Editorial

Winter has arrived, although at the beginning of the month saw some windy but warm weather, with early June temperatures the highest for over ten years. Rain in the middle of the month was welcome, but the cold winds perhaps not. Rain out west was no doubt very welcome.

This edition contains a piece on the potential of rainforest species as house plants and an update on the number of fern taxa on the South Coast and elsewhere. The mystery weed from last month is solved, while another native wetland plant is described. Other pieces look at buttressing in rainforest trees and the largest ferns and mosses.

Careful readers are finding mistakes again (well done); Diane (Nowra) points out the 'Wandered Butterfly' on page two last month.

I visited Tallowa Dam recently and as usual heard the Bell Miners calling in their colonies across the valley. This reminded me of Henry Kendall's poem *Bellbirds*, which describes the gullies of central NSW.

By channels of coolness the echoes are calling,
And down the dim gorges I hear the creek falling:
It lives in the mountain where moss and the sedges
Touch with their beauty the banks and the ledges.
Through breaks of the cedar and sycamore bowers
Struggles the light that is love to the flowers;
And, softer than slumber, and sweeter than singing,
The notes of the bell-birds are running and ringing.

I would be pleased to receive appropriate articles, however small, on interesting observations, new discoveries, plant name changes, etc., up to two A4 pages, including some photographs. Deadline is one week before the end of the calendar month.

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* *Budawangia* is a monotypic, endemic genus restricted to the Budawang Range on the western edge of the South Coast region. The genus was named by Telford in 1992; the species *Budawangia gnidioides* (Ericaceae) was previously *Rupicola gnidioides*.

Bringing the Rainforest Indoors

Emma has asked for a note on using rainforest plants as house plants. The one experience I have is of the locally rare small tree *Pisonia umbellifera* (Nyctaginaceae). We grew two plants from seeds and had them as house plants for quite a few years, before planting them in the rainforest patch we established on our previous block at Jamberoo. This species has attractive large glossy green leaves and grew very well indoors.

There is a wide range of native rainforest plants that are likely to be suitable for indoor cultivation. These include ferns and herbs such as *Peperomia* spp. There seems to be little information around about which species are successful, but the low light conditions of the rainforest environment are likely to produce suitable plants for indoors. Does anyone else have experience of local rainforest species as house plants?

The book by David Jones titled *Ornamental Rainforest Plants in Australia* (1986), contains a wealth of information on growing rainforest species, but nothing on house plants.

Right. The glossy green leaves and small flowers of *Pisonia umbellifera*.



Number of Fern Taxa: NSW, South Coast and Minnamurra

Following my note in last month's newsletter, I was asked to provide updates on my South Coast fern study. In the table below, I have summarised the number of ferns in NSW, the South Coast and at Minnamurra Rainforest. Minnamurra is included because of its high importance for fern conservation in southern NSW, as emphasised by the percentages quoted in the table. Its rich fern flora is not likely to be repeated anywhere else in southern NSW. This is my work in progress, so changes are likely to be required in the future.

		NSW	South Coast ¹	Minnamurra ²
No. of Native Fern Allies	Families	3	2	2
	Genera	6	3	3
	Species	10	4	3
No. of Native Ferns	Families	25	21	19
	Genera	63	45	40
	Species	166	113	92
Total Species		176	117 (66% ³)	95 (54% ³)(84% ⁴)
No. Naturalised Species	Families	7	4	-
	Genera	9	4	-
	Species	9	4	-
No. at southern limit		-	21	4
No. at northern limit		-	1	1
Epiphytes		34	27	23
Tree ferns		5	4	4
Filmy Ferns		16	11	10
Climbing Ferns		8	6	6
Threatened taxa, TSC Act (NSW)		10	1	1
ROTAP taxa (Briggs & Leigh 1996)		5	3	2
NSW endemic		2	-	-

Notes. 1. South Coast is from Port Hacking south to the Clyde River. 2. The upper Minnamurra River valley, mostly within Budderoo NP. 3. Percentage of state total. 4. Percentage of South Coast total.

As noted in the last newsletter, I am happy to receive any fern identification queries. One species I am keen to find is the coastal fern Shore Spleenwort *Asplenium obtusatum* ssp. *northlandicum*, which was last recorded north of the Shoalhaven River at Kiama in 1886. There is a more recent record from Bowen Island (1996), with scattered collections from the far south coast. Let me know if you find such a fern.

Mystery Weed Solved

The mystery weed species from last month (not such a mystery to several people who responded) was of course Camphor Laurel *Cinnamomum camphora* (Lauraceae), a tree native of China and Japan. This species is not an important weed on the South Coast, but is widespread as a seedling/shrub-sized plant. On the north coast, where conditions are warmer, the species is a highly invasive species.

The fruits are spread by birds, and are a favourite food of the White-headed Pigeon, a species that has increased greatly in the region over the past 20 years.

Camphor Laurel is often planted in parks, etc. and can grow to be a very large tree; for example, some huge old specimens can be seen in the park at Jamberoo.



Right. The leaves and immature fruit of *Cinnamomum camphora*.

Wetland Plants No. 11 - *Lobelia anceps*

The herb Angled Lobelia *Lobelia anceps* (Campanulaceae) occurs in freshwater and brackish wetlands. Plants are often found growing on coastal headlands where there is freshwater seepage from above. The species has had several names, including *Lobelia alata*, under which it will be found in many older plant books.

The genus *Lobelia* occurs in tropical and subtropical regions, and contains over 350 species, including some very large species in Hawaii.



More on *Asparagus virgatus*

Following last month's note on this exotic species in Jamberoo Valley; David Pomery (District Weeds Officer) reports that it is a weed of concern because it could become invasive like several other species of *Asparagus*. This plant should therefore be killed or removed unless growing in a garden. Fruits produced on garden plants should be picked and disposed of before they mature, to stop the species spreading.

Why buttresses?

Buttressing on the lower trunks of rainforest trees is quite common in the tropics. Some local trees, primarily those with tropical-subtropical affinities, produce buttresses. Common species in our rainforest to do this to varying degrees include Red Cedar *Toona ciliata*, Giant Stinging Tree *Dendrocnide excelsa*, Figs *Ficus* spp. and Churnwood *Citronella moorei*, all potentially very large trees.



Red Cedar *Toona ciliata*.



Moreton Bay Fig *Ficus macrophylla* (planted).

The buttressing is produced by the lower trunk and roots of the tree; see photographs above. The purpose of the habit of buttressing in some trees is somewhat unclear. Structural support for the tree is usually cited as at least one reason, where the spreading roots and trunk bases take the stresses placed on the trees in high winds. This may be important on the shallow soils of many tropical forests, for example. However, some studies have found that during cyclones just as many buttressed trees are blown over as non-buttressed trees. Another theory is that the increased surface area of the bark enhances gaseous exchange. The word 'buttress' appears to come from the French *bouter* - to push. The buttresses seen on early buildings were aimed at counteracting the outward force of a heavy roof pushing against the walls; i.e. pushing back against that force. Anyone who has seen Note Dame in Paris will appreciate the buttress in early building design.

Big, bigger, biggest

Ferns and mosses are usually thought of as small and often delicate. However, there are some large examples. The largest species of fern is *Cyathea brownii*, a tree fern endemic to Norfolk Island, which can grow to over 20 metres in height. The world's tallest moss is *Dawsonia superba* var. *superba* from New Zealand, which can grow to a height of 60 cm. The Australian taxon, *Dawsonia superba* var. *pulchra*, grows to less than half that height. The latter taxon can be found throughout eastern NSW.



Opposite; image of *Dawsonia superba* var. *pulchra* from Australia (Australian Mosses Online published by ABRS).